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GGCGGGCTGGGTGGCCAG
CAAGGTGGCTATGGCGC
GGTGGCTGGCGG

ATGAGAGGATCGCATCACCATCACCATCACGGATCCATGGCTAGCGGTAGAGGCGGGCTGGGTGGCCAGG
GGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGC
CTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCC
GCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGT
AGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGC
CGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGG
TGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCT
GGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGC
GGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAG
AGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGCAGCGGCCGAGG
CGGTGCCGGCCAAGGYGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGG
CCAGGGTGCAGGTGCGGCTGCGGCTGCGGCGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGG
CGGCCTGGGTTCTCAGGGGACTAGTGGGATCCGTCGACCTGCAGCCAAGCTTAATTAG

[illegible]

MRGSHHHHHHGSMA SGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAA
AAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQGTSGRGGLG
GQGAGAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQ
GTSGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAGGAGQ
GGYGGLGSQGTSGIRPAAKLN.

MRGSHHHHHHGSMA SGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAA
AAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQGTSGRGGLG
GQGAGAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQ
GTSGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAGGAGQ
GGYGGLGSQGTSGIRPAAKLN.

Figure 3. *pQE [(SP1)/(SP2)]*, Nucleic Acid Sequence (designated SEQ ID NO. 3)

ATGAGAGGATCGCATCACCATCACCATCACGGATCCATGGCTAGCGGTAGAGGCGGGCTGGGTGGCCAG
GGTGCAAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGC
CTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCC
GCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGT
AGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGC
CGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGG
TGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCT
GGGTTCTCAGGGGACTAGCGGTCCGGGCGGTTATGGTCCGGGTCAACAACTAGCGGTAGAGGCGGGCT
GGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTG
GCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGG
CTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGG
GACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCC
GCAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTG
GGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGG
CTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTCCGGGCGGTTATGGTCCGGGTCAACAACTAGCGG
TAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTG
CCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGG
GTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCC
TGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCG
CGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTA
GAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCC
GGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTCCGGGCGGTTATGGTCCGGGTCAA
CAACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGC
CGCAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCT
GGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTG
GCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGG
CTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGG
GACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCC
GCAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTCCGGGCGGTTAT
GGTCCGGGTCAACAACTAGTGGGATCCGTGACCTGCAGCCAAGCTTAATTAG

Figure 4: pQE [(SP1)₄/(SP2)₁]₄Amino Acid Sequence (designated SEQ ID NO. 4)

MRGSHHHHHGSMASGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAA
AAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGRG
GLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGPGGYGPGQQTSGRGGLGGQGAGAAAAAAAAA
AGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAG
AAAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGP
GGYGPGQQTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAA
AAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQG
AGAAAAAAAAAAGGAGQGGYGGLGSQGTSGPGGYGPGQQTSGRGGLGGQGAGAAAAAAAAAAGGAG
QGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAA
AAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGPGGYGP
CQQTSGIRPAAKLN.

MRGSHHHHHGSMASGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAA
AAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGRG
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AGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAG
AAAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGP
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AAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQG
AGAAAAAAAAAAGGAGQGGYGGLGSQGTSGPGGYGPGQQTSGRGGLGGQGAGAAAAAAAAAAGGAG
QGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAA
AAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAAAAAGGAGQGGYGGLGSQGTSGPGGYGP
CQQTSGIRPAAKLN.

Figure 5: *pET [(SP1)/(SP2)]*, Nucleic Acid Sequence (designated SEQ ID NO. 5)

ATGGCTAGCATGACTGGTGGACAGCAAATGGGTCGCGGATCCATGGCTAGCGGTAGAGGCGGGCTGGGT
GGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTAT
GGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCG
GCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACT
AGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGG
CGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGG
CCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGG
CGGCCTGGGTTCTCAGGGGACTAGCGGTCCGGGCGGTTATGGTCCGGGTCAACAACTAGCGGTAGAGG
CGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCA
AGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGG
TGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTC
TCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAG
CGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCG
GGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCA
GGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTCCGGGCGGTTATGGTCCGGGTCAACAACT
AGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGG
CGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGG
CCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGG
CGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGG
TGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAG
CGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCG
GTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTCCGGGCGGTTATGGTCCGG
GTCAACAACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAG
GCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGC
GGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCA
AGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGG
TGCGGCTGCGGCTGCCGCGGCAGCGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTC
TCAGGGGACTAGCGGTAGAGGCGGGCTGGGTGGCCAGGGTGCAGGTGCGGCTGCGGCTGCCGCGGCAG
CGGCCGAGGCGGTGCCGGCCAAGGTGGCTATGGCGGCCTGGGTTCTCAGGGGACTAGCGGTCCGGGCG
GTTATGGTCCGGGTCAACAACTAGTGGGATCCGAATTCGAGCTCCGTCGACAAGCTTCGAGCACCACC
ACCACCACCACTGA

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

MASMTGGGQQMGRGSMASGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGA
AAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQGTSGRG
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AAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQGTSGPGGY
GPGQQTSGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAG
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GSQGTSGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAGG
AQGGYGGLGSQGTSGRGGLGGQGAGAAAAAAGGAGQGGYGGLGSQGTSGPGGYGPGQQTSGIRIR
APSTSFEHHHHHH

Figure 7: *pETNcDS* Nucleic Acid Sequence (designated SEQ ID NO. 7)

ATGGCTAGCATGACTGGTGGACAGCAAATGGGTCGGATCCGAATTCGTGGATATGGAGGTCTTGGTGGA
CAAGGTGCCGGACAAGGAGCTGGTGCAGCCGCCGACAGCAGCTGGTGGTGCCGGACAAGGAGGATA
TGGAGGTCTTGGAAGCCAAGGTGCTGGACGAGGTGGACAAGGTGCAGGCGCAGCCGCAGCCGCAGCTG
GAGGTGCTGGTCAAGGAGGATACGGAGGTCTTGGAAGCCAAGGTGCTGGACGAGGAGGATTAGGTGGA
CAAGGTGCAGGTGCAGCAGCAGCAGCTGGAGGTGTCGGACAAGGAGGACTAGGTGGACAAGGTGCTGG
ACAAGGAGCTGGAGCAGCTGCTGCAGCAGCTGGTGGTGCCGGACAAGGAGGATATGGAGGTCTCGGAA
GCCAAGGTGCAGGACGAGGTGGATCAGGTGGACAAGGGGCAGGTGCAGCAGCAGCAGCAGCTGGAGGT
GCCGGACAAGGAGGATATGGAGGTCTTGGAAGCCAAGGTGCAGGACGAGGTGGATTAGGTGGACAGGG
TGCAGGTGCAGCAGCAGCAGCAGCAGCCGGAGGTGCTGGACAAGGAGGATACGGTGGTCTTGGTGGAC
AAGGTGCCGGACAAGGTGGCTATGGAGGACTTGGAAGCCAAGGTGCTGGACGAGGAGGATTAGGTGGA
CAAGGTGCAGGTGCAGCAGCAGCAGCTGGAGGTGCCGGACAAGGAGGACTAGGTGGACAAGGAGCTGG
AGCAGCCGCTGCAGCAGCTGGTGGTGCCGGACAAGGAGGATATGGAGGTCTTGGAAGCCAAGGTGCTG
GACGAGGTGGACAAGGTGCAGGCGCAGCCGCAGCAGCAGCCGGAGGTGCTGGACAAGGAGGATACGGT
GGACAAGGTGCCGGACAAGGAGGCTATGGAGGACTTGGAAGCCAAGGTGCTGGACGAGGAGGATTAGG
TGGACAAGGTGCAGGTGCAGCAGCAGCAGCAGCAGCTGGAGGTGCCGGACAAGGAGGATTAGGTG
GACAAGGTGCAGGTGCAGCAGCAGCAGCAGCTGGAGGTGCTGGACAAGGAGGATTAGGTGGACAAGGT
GCTGGACAAGGAGCTGGAGCAGCCGCTGCAGCAGCCGCTGCAGCAGCTGGTGGTGTAGACAAGGAGG
ATATGGAGGTCTTGGAAGCCAAGGTGCTGGACGAGGTGGACAAGGTGCAGGCGCAGCCGCAGCAGCAG
CCGGAGGTGCTGGACAAGGAGGATATGGTGGTCTTGGTGGACAAGGTGTTGGACGAGGTGGATTAGGTG
GACAAGGTGCAGGCGCAGCGGCAGCTGTTGGTGGTGGACAAGGAGGATATGGTGGTGTGGTTCTGGGG
CGTCTGCTGCCTCTGCAGCTGCATCCCGTTTGTCTTCTCCTCAAGCTAGTTCAAGAGTTTCATCAGCTGTT
TCCAAC TTGGTTGCAAGTGGTCTACTAATTCTGCGGCCTTGTCAAGTACAATCAGTAATGTGGTTTCAC
AAATAGGCGCCAGCAATCCTGGTCTTTCTGGATGTGATGTCCTCATTCAAGCTCTTCTCGAGCACCACCA
CCACCACCACTGAA

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[illegible]

Figure 9: OmpF Amino Acid Sequence, designated SEQ ID NO. 9, without the Signal Sequence (as recovered from *E. coli* by Valeric Acid)

AEIYNKDGKVDLYGKAVGLHYFSKNGENSYGGNGDMTYARLGFKGETQINSDLTGYGQWEY
NFQGNNSEGADAQTGNKTRLAFAGLKYADVGSFDYGRNYGVVYDALGYTDMLPEFGGDTAYSD
DFFVGRVGGVATYRNSNFFGLVDGLNFVQYLGKNERDTARRSNGDGVGGSSISYEYEGFGIVGAY
GAADRTNLQEAQPLGNGKKAQWATGLKYDANNIYLAANYGETRNATPITNKFTNTSGFANKTQ
DVLLVAQYQFDFGLRPSIAYTKSKAKDVEGIGDVDLVNIFEVGATYYFNKNMSTYVDYIINQIDS
DNKLGVGSDDTVAVGIVYQFA

Figure 10: *Recognin B1* Nucleic Acid Sequence (designated SEQ ID NO. 10)

ATGAGAGGATCGCATCACCATCACCATCACGGATCCATGGCTAGCGGTGACCTGAAAAACAA
AGTGGCCCAGCTGAAAAGGAAAGTTAGATCTCTGAAAGATAAAGCGGCTGAACTGAAACAAG
AAGTCTCGAGACTGGAAAATGAAATCGAAGACCTGAAAGCCAAAATTGGTGACCTGAATAAC
ACTAGTGGGATCCGTCGACCTGCAGCCAAGCTTAATTAG

ATGAGAGGATCGCATCACCATCACCATCACGGATCCATGGCTAGCGGTGACCTGAAAAACAA
AGTGGCCCAGCTGAAAAGGAAAGTTAGATCTCTGAAAGATAAAGCGGCTGAACTGAAACAAG
AAGTCTCGAGACTGGAAAATGAAATCGAAGACCTGAAAGCCAAAATTGGTGACCTGAATAAC
ACTAGTGGGATCCGTCGACCTGCAGCCAAGCTTAATTAG

Figure 11: Recognin B1 Amino Acid Sequence (designated SEQ ID NO. 11)

MRGSHHHHHHGSMASGDLKNKVAQLKRKVRSLKDKAAELKQEVSRLENEIEDLKAKIGDLNNTSGIRRPAA
KLN

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Figure 12

Comparative Gel of Acid Lysis vs. Traditional Denaturing Conditions

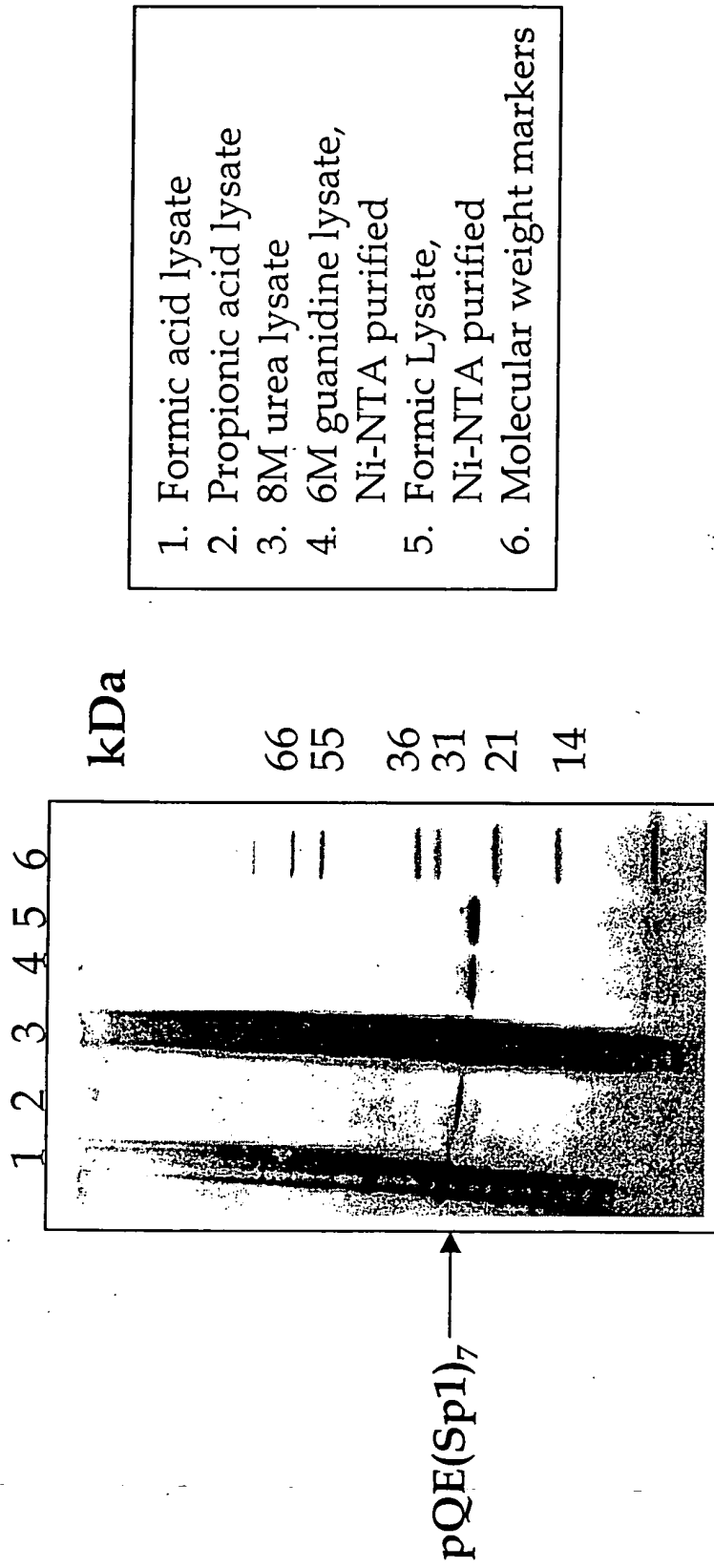


Figure 13

Gel of QAE-Sephadex Purification
of Propionic Acid (PA) Extracted pET[(Sp1)₄/(Sp2)₁]₄Protein

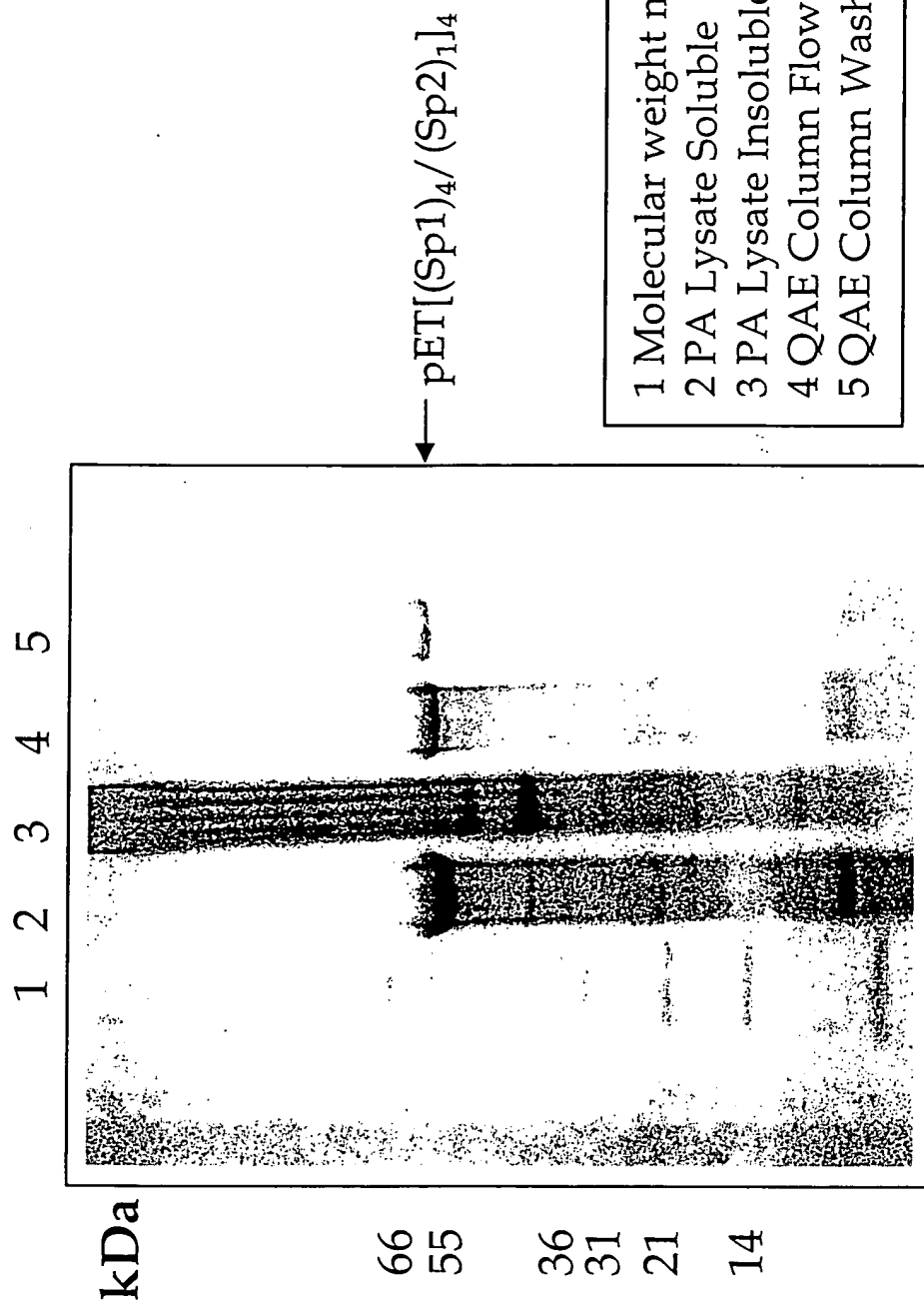


Figure 14
 QAE-Sephadex Purification of Propionic Acid
 and Guanidine-HCl Extracted pET[(SP1)₄/(SP2)₁₄] Protein

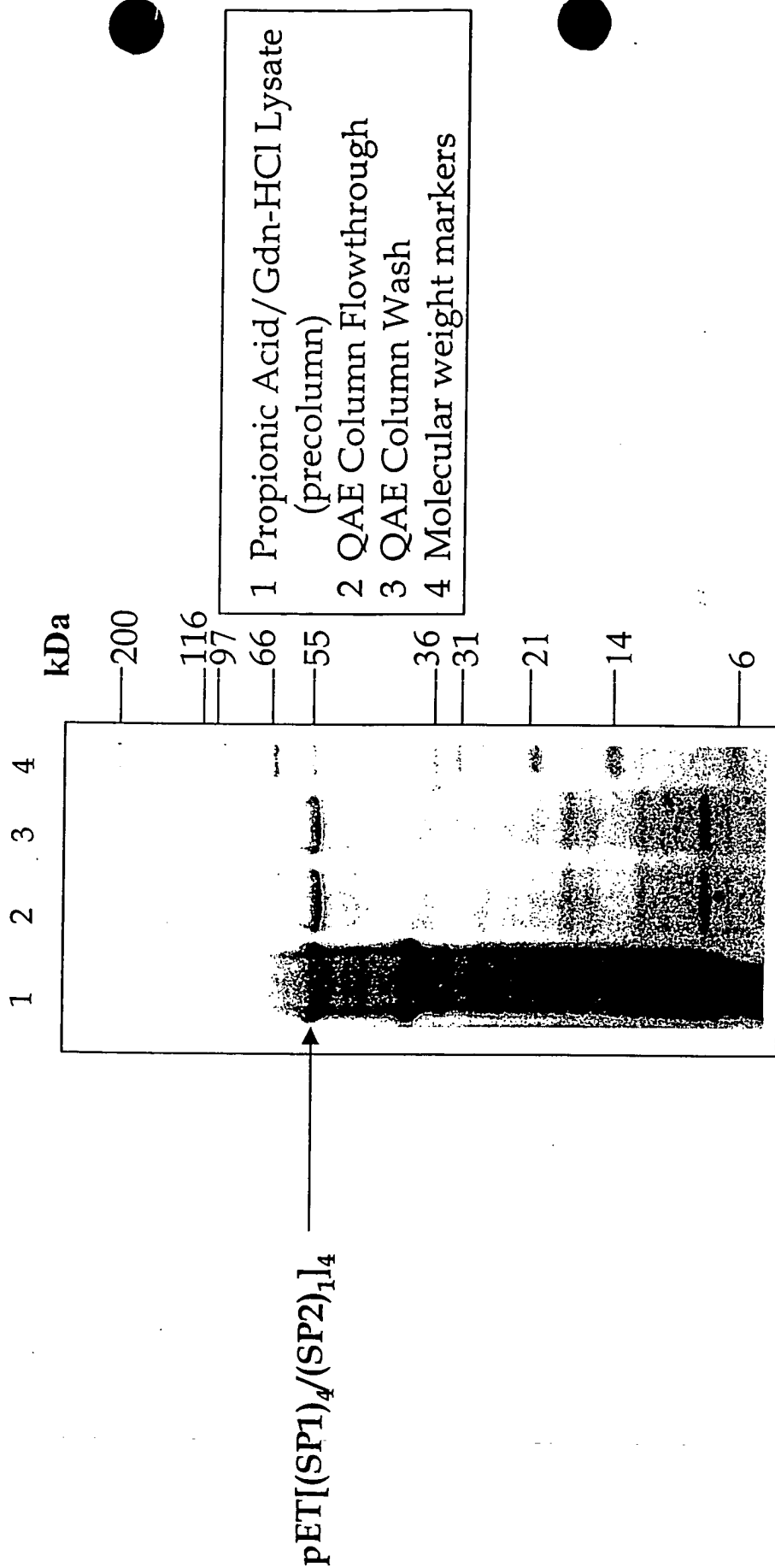
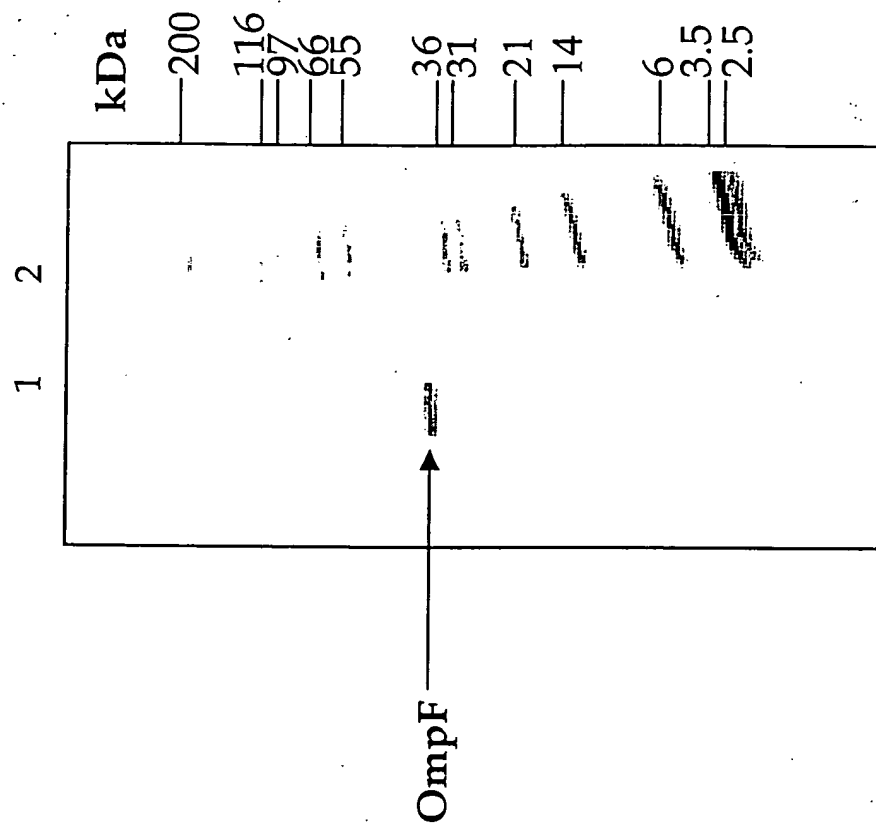


Figure 15
OmpF -Valeric Acid Lysis



1. OmpF pellet lysed in valeric acid
2. Molecular weight markers

Figure 16

Comparative Gel of Recognin B1 Acid Lysis

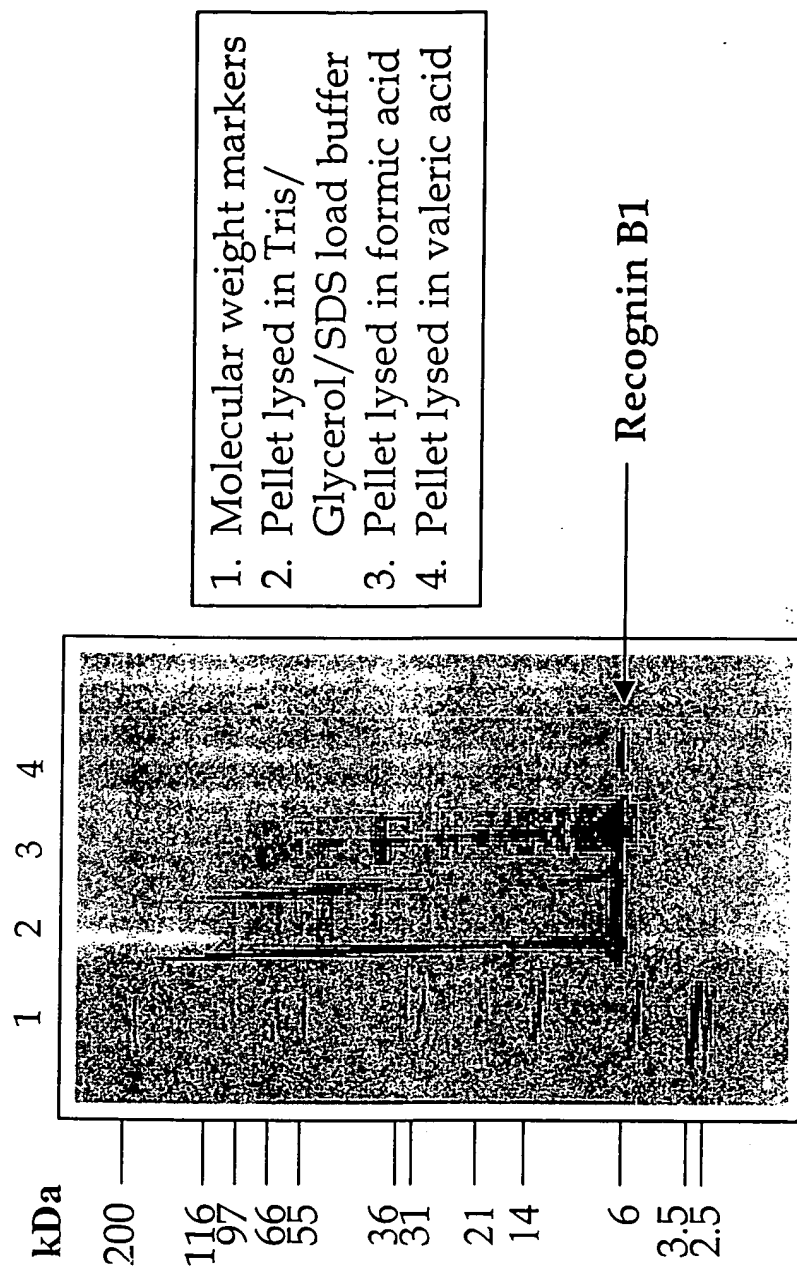
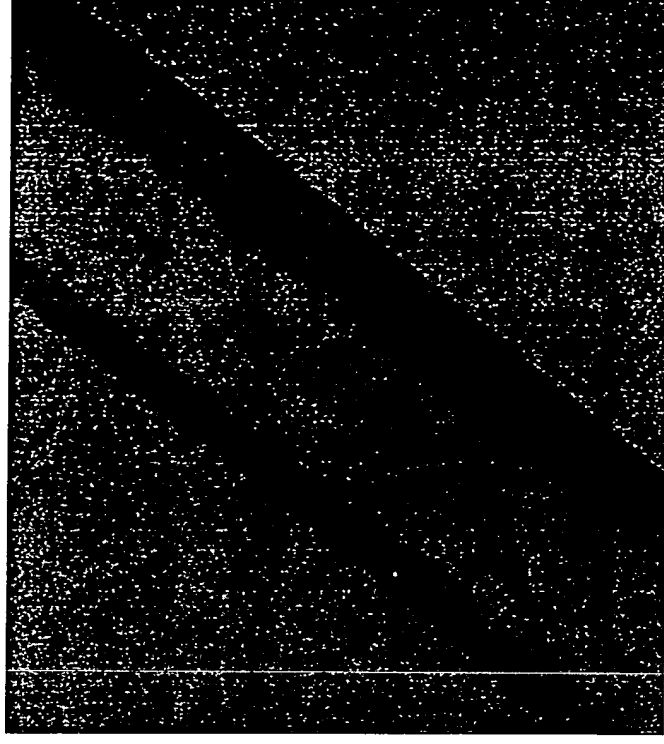
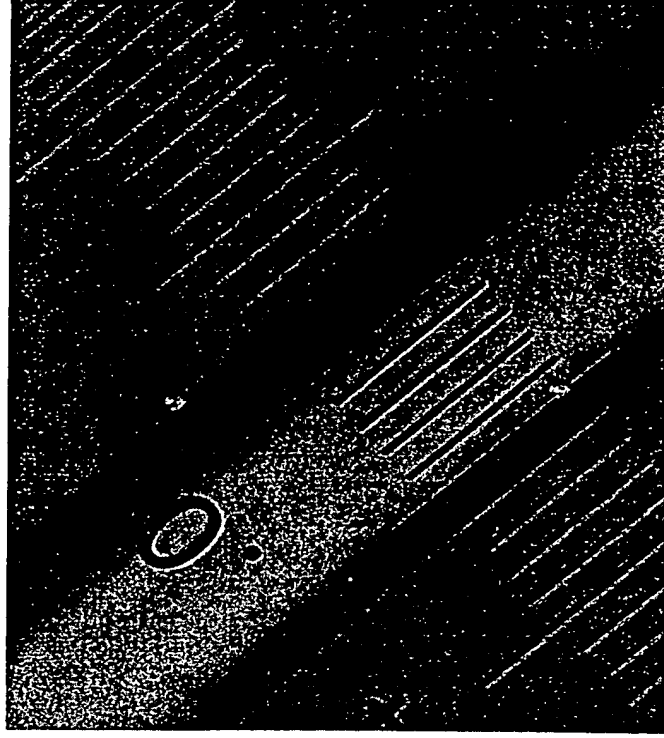


Figure 17

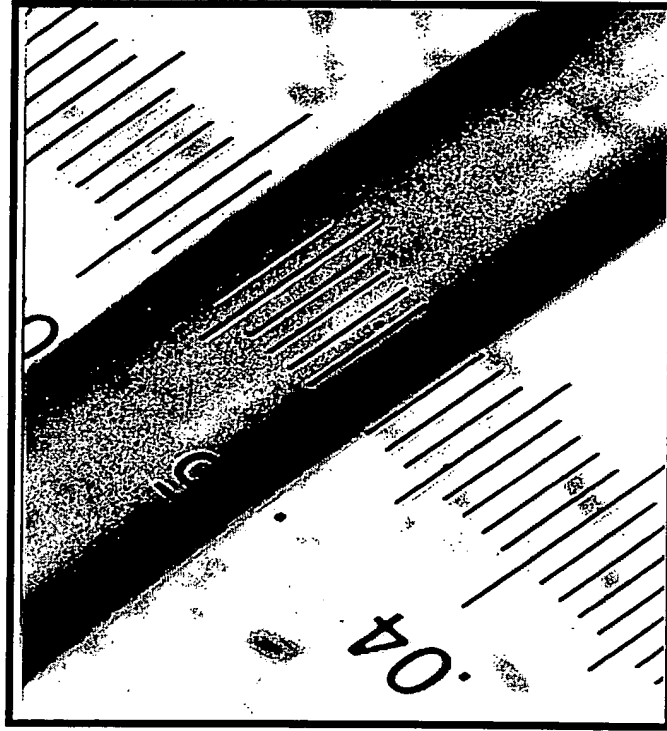
pETNcDS fiber under light microscopy. Spun from 25% protein solution into 90% methanol coagulation bath.



Polarized light w/tint plate

Figure 18

pQE[(SP1)₄/(SP2)₁]₄ fiber under light microscopy. Spun from a 12.5% protein solution into 90% methanol coagulation bath.



White light



Polarized light
w/ tint plate